

DSID Linking Code Schematic (DSID-3)

Segment information:

DSID 3 linking code contains **four** pieces of information and consists of four segments which adds up to 13 digits long (3-5-2-3): **1112222233444**

1. **Digits 1 through 3** (segment **111**) represent **USDA Standard Reference Nutrient number**;
2. **Digits 4 through 8** (segment **22222**) represent NHANES supplement **label value** per serving;
3. **Digits 9 through 10** (segment **33**) represent the **DSID product category**;
4. **Digits 11 through 13** (segment **444**) represent **DSID release**;

The table below provides the key to ascertain where the decimal is inserted in the five digits for NHANES supplement label value, as well as the units per serving in which the nutrient amount is being measured.

| | DSID Ingredient Name | 10^3 | 10^2 | 10^1 | 10^0 | . | 10^{-1} | 10^{-2} | 10^{-3} | 10^{-4} | Unit |
|----|-----------------------------|--------|--------|--------|--------|---|-----------|-----------|-----------|-----------|------|
| 1 | Calcium | | x | x | x | . | x | x | | | mg |
| 2 | Copper | | | | x | . | x | x | x | x | mg |
| 3 | Chromium | | x | x | x | . | x | x | | | mcg |
| 4 | Folic Acid | x | x | x | x | . | x | | | | mcg |
| 5 | Iodine | | x | x | x | . | x | x | | | mcg |
| 6 | Iron | | x | x | x | . | x | x | | | mg |
| 7 | Magnesium | | x | x | x | . | x | x | | | mg |
| 8 | Manganese | | | x | x | . | x | x | x | | mg |
| 9 | Niacin | | x | x | x | . | x | x | | | mg |
| 10 | Phosphorus | | x | x | x | . | x | x | | | mg |
| 11 | Potassium | x | x | x | x | . | x | | | | mg |
| 12 | Riboflavin | | x | x | x | . | x | x | | | mg |
| 13 | Selenium | | x | x | x | . | x | x | | | mcg |
| 14 | Thiamin | | x | x | x | . | x | x | | | mg |
| 15 | Vitamin A | x | x | x | x | . | x | | | | IU |
| 16 | Vitamin B-6 | | x | x | x | . | x | x | | | mg |
| 17 | Vitamin B-12 | | x | x | x | . | x | x | | | mcg |
| 18 | Vitamin C | x | x | x | x | . | x | | | | mg |
| 19 | Vitamin D | x | x | x | x | . | x | | | | IU |
| 20 | Vitamin E | x | x | x | x | . | x | | | | IU |
| 21 | Zinc | | x | x | x | . | x | x | | | mg |
| 22 | Alpha-Linolenic Acid (ALA) | x | x | x | x | . | x | | | | mg |
| 23 | Docosahexaenoic Acid (DHA) | x | x | x | x | . | x | | | | mg |
| 24 | Eicosapentaenoic Acid (EPA) | x | x | x | x | . | x | | | | mg |

Example:

Referring to calcium as an example, the decimal would be inserted between the 3rd and 4th digits of the linking code section for nutrient labeled amount (which are the 6th and 7th digits of the entire DSID linking code). Thus, 3010020001030 would refer to a 2 mg serving of calcium.

However, for copper, the linking code 3120020001030 would refer to a 0.02 mg serving of copper.

Determining the range of label values that a code could represent was determined by consulting the limits of the NHANES 03-10 products label range to determine what values would need to have linking values. For any nutrient given, the schematic is intended to apply to it regardless of the study.

Digits 9 and 10 represent the DSID product category. There is no decimal insertion in these digits. In this release, the following values are used:

01: Adult MVM

02: Children's MVMs for 4 and older

03: Non-prescription Prenatal MVMs

04: Omega-3 with per serving unit

Digits 11 through 13 represent the DSID release. The decimal in the release version is inserted between digits 12 and 13. Thus, 3010200001030 refers to DSID release 3.0.

Special cases

There were 6 label amount values for riboflavin, 1 value in vitamin B-6, and 4 values for thiamin in adult MVMs that had 3 decimal places were rounded to 2 decimal places. There were 2 label amount values for folic acid, 1 value in vitamin E in adult MVMs, and 1 label amount value for potassium in non-prescription prenatal MVMs were rounded to 1 decimal place. Accommodating more decimal places for either of these ingredients would require a six-digit, even seven-digit linking code system. The decision made, therefore, was to retain the five-digit system, assigning linking codes to these entries that would be based on rounding the labeled amounts to the nearest hundredth. This will not impact the predicted value reported.

After the label value was rounded, some of the rounded label values happened to be same with other label values. This happened to 3 values in riboflavin, 1 value in thiamin, and 1 value in vitamin E in adult MMV products. This resulted in the same linking code for two different ingredient label amounts. When linking table 2 to tables 3-6, one NHANES supplement ingredient may be linked with two records in table 2. One record could be easily deleted by checking the label amount.